



Examiners' Report

Principal Moderator Feedback

Summer 2023

Pearson Edexcel GCE in

AS Geography (9GE0/04)

9GE04

This was the first year since 2019 when there were no special arrangements in place for the completion of the Independent Investigation. It was pleasing to see, however, that many of the innovative techniques used in the last series was still in evidence such as using the historic photo function in 'Street View' on Google Maps as well as the increased harvesting of data from social media.

It was also pleasing to see that without the restrictions of COVID – 19 there was a far better balance between physical and human titles which was closer to the balance seen in 2019. In particular there was an increase in investigations being carried out in relict glacial landscapes.

Titles

In the main, Centres have taken on board the advice offered in previous series that the best investigations had titles that allowed the candidate to investigate the extent to which the impacts of regeneration varied or the extent to which coastal management schemes were successful. These allow the candidates to analyse, synthesise and draw conclusions from their fieldwork data that are far more sophisticated than those titles which have more simplistic titles that set out to examine say if one area is of higher quality than another. There was, however, some evidence of titles which were very much a 'desk based' project. Although the use of secondary data can be essential in some investigations, candidates need to be wary of completing what is essentially an EPQ as the collection of primary data is at the heart of an Independent Investigation.

In the main, there was evidence that the planning sheets were carefully completed with approval given. The principal Moderator would like to emphasise that it is within guidelines for the centre to **ask** their candidates about what sampling methods might be appropriate or how the survey might be designed but not **suggest** which may be appropriate. This should be recorded on the planning sheet so the moderator can be assured that guidance provided has been within guidelines. Some candidates would also benefit from having Key Questions that were formulated in a more analytical and less descriptive way (for example 'How does the beach profile change along the beach' and 'How does sediment size change' are descriptive questions less likely to lead to an analytical investigation).

There was also some evidence that centres were encouraging their entire cohort to compare two distinct urban or rural areas. Unfortunately the resulting comparison between the two places was often minimal, and it may have been better to compare two different parts of one urban/rural area and use the other as either an element of comparative context or part of the broader geographical context.

There continues to be a wide variety of both physical and human coursework titles submitted this year. The success of regeneration schemes in urban areas was again the most popular urban title but it was pleasing to see some candidates attempting projects investigating street art as well as insider and outsider perceptions of both rural and urban areas.

Overall, the titles were at a manageable scale and the Principal moderator was pleased to see that there are fewer titles which are impossible to complete such as the impact of globalisation on an identified area. There were some Covid - 19 inspired titles but unfortunately these were often on too large a scale for the candidates to draw meaningful conclusions. Furthermore, candidates often did not have the pre-covid 19 data to compare with their contemporary post covid -19 data. Centres are encouraged to use the CAS service offered by Pearson, the online and face to face training sessions and the exemplar materials provided the Pearson web site.

Despite the comments made in the last report there was still evidence of using an example of good practice obtained from the training material provided by the board as a 'template' for the whole of the Independent Investigation. Candidates are reminded that trying to fit a different geographical situation to a 'model' investigation often does not work very well and in future candidates should view these examples as possible approaches as opposed to the only way in which to write their own Independent Investigation.

Purpose of the investigation

The best candidates continued to demonstrate accurate and relevant geographical knowledge and understanding of location, geographical theory throughout the investigations rather than just in the first section usually titled 'Introduction'. Models and theories were to the fore in many of the very best investigations and it was pleasing to see that many centres had not only continued to use the Egan wheel as a tool for assessing the success of regeneration but also other models which focused on what makes a good place. Unfortunately despite the comments in the last report some models are very old (Burgess, Hoyt) and often have little applicability to the candidate's investigation.

Many investigations showed good practice and had a good send of place using annotated maps, photographs and background information on the area under investigation. However in some cases the location maps that were included but were too small or too faint (often sourced from google maps) to see or had no titles or annotations. Candidates are reminded that the use of maps and photographs should be relevant to the title and not a simple map with irrelevant information such as shops and restaurants. There was also a decline in the number of investigations which had a separate Literature Review. In particular it was pleasing to see that the 3 to 4 page 'review' of 'background' to the topic was far less in evidence this year.

There was evidence of the development of accurate and comparative context in this section of the NEA. However, these were not often referred to overtly in other sections of the investigation, in particular the conclusion. Centres are still encouraged to inform their candidates of the usefulness of comparing their study location and crucially their conclusions to other similar situations, not only in this section but crucially in either the Data representation, analysis and interpretation as well as the Conclusions and critical evaluation sections.

A bibliography is not a requirement, but some NEA had no references to the sources of information referred to, and good practice would be to include these as footnotes or a reference list.

A useful checklist for students might be to make sure that they self-assess their work using the following list

- ✓ *Accurate and relevant geographical knowledge*
- ✓ *A model and / or theory that can be tested*
- ✓ *Applies understanding to find coherent and relevant links*
- ✓ *Investigates a wide range of relevant geographical sources throughout the project*
- ✓ *Research information is used to construct a justified aim*
- ✓ *Manageable scale*
- ✓ *Appropriate framework*

Field Methodologies and Data Collection

Unlike in 2022 there was no guidance from JCQ on the collection of fieldwork data and all candidates were expected to collect a broad range of data from the field. As a result, there was a range of techniques used both for primary (quantitative and qualitative) and secondary data. Some centres made good use of ARCGIS to collect data. The techniques used from the 2022 cohort were also in evidence for the 2023 cohort particularly the use of Google Street view, webcams and online surveys.

A particular issue this year was the lack of detail and sometimes understanding over sampling. The reason for a particular sampling strategy was often not given and it was rare to see a sample size calculated and used for a questionnaire. These are readily available from tools such as survey monkey. If a named sampling system was used it was often not justified nor was it always fully understood. There was also little evidence of maps to show how, where and why data collection points were located.

The best candidates still used tables to summarise data collection methods with how/when/sampling/ethical consideration/problems/limitations – which were printed landscape. The better ones also had a clear link to the sub questions and so why the data was being collected.

There is unfortunately still evidence of data being collected by a large group which led to some investigations only having a tangential link between their title and the data that was collected. These investigations then found it challenging to have meaningful conclusions as often the group data had little relevance to their individual title. Centres should ensure that where group data is collected all of the candidates use this data meaningfully. This was of particular concern with coastal investigations where sediment size and shape were obviously collected as a group but then shoe-horned into investigations that focused on the success of management.

There was some evidence that some data collection techniques were detailed by the candidate but there was then no subsequent analysis of that data. Some of the questionnaires that were used were also basic with yes/no answers only that limited the data representation and analysis options.

There was also some evidence of a creep of EPQ style investigations that relied almost totally on secondary data and had only minimal primary data collection. It is important to note that investigations based purely on secondary data has not been appropriate for past cohorts and were not considered appropriate in 2023.

It was however pleasing to report that most candidates have come to grips with what constitutes the ethical dimensions of field research methods. There were far fewer projects where the only considerations were a vague risk assessment (which in any case is not required for the investigation).

A useful checklist for students might be to make sure that they self-assess their work using the following list;

- ✓ *Chooses appropriate methods*
- ✓ *Range of data*
- ✓ *Designs a valid sampling framework*
- ✓ *Temporal sampling*
- ✓ *Spatial sampling*
- ✓ *Ethical dimensions*
- ✓ *Reliability*
- ✓ *Accuracy*
- ✓ *Precision*

Data representation, analysis and interpretation

Candidates are continuing to use a pleasing range of both cartographical and graphical presentational techniques. In particular candidates are using the geolocating package 'Survey123'. ArcGIS was also used by some candidates to present their data geographically. Weaker candidates, however, did little to integrate their data presentation with their analysis and often relied on the same graph for all their data. In some cases there were large number of pie graphs for yes/no answers and probably as a result of the need to upload the work electronically there were images of graphs that were too small to read and sometimes without axes labelled or had no title. There was also some evidence of inappropriate data representation techniques such as pie graphs for pedestrian flows in different areas.

The use of statistics to aid the analysis of the data collected continues to be mixed and the Spearman's Rank test in particular was not well understood. There was evidence of errors such as using only 5 pairs of data as well as the incorrect calculation of the result. In some cases there was no reference to the level of confidence of results or an indication of how this was determined. Others also failed to link their statistical findings to their enquiry questions.

As suggested in last year's report centres are encouraged to recommend the RGS 'A Student Guide to the A Level Independent Investigation (Non-examined Assessment—NEA)' to their students with help on choosing the appropriate statistical technique.

There was, however, one element that was observed in some of the work seen that had an impact on the marks awarded - the lack of synthesis of the results. In some cases, there was competent analysis of the work which was very linear and lacked cross referencing with other results. This meant that such projects found it difficult to fully synthesise the results that they had gained. Centres are encouraged to suggest to their candidates that the best projects not only have a linear approach to the analysis but draw across the primary and secondary data to synthesise their results. Candidates should be encouraged to use more diagrams (mind-maps, spider etc) to try and show how their data links together to answer (or contradicts) their working hypotheses/key questions.

Furthermore, relying on the 2011 census will be inappropriate in future years as more up to date sources of information about places are available, for example from the ONS or via the Index of Multiple Deprivation. Analysis of the 2021 census is available here <https://census.gov.uk/census-2021-results>

A useful checklist for students might be to make sure that they self-assess their work using the following list;

- ✓ Statistical skills
- ✓ Geographical skills
- ✓ Synthesis of results
- ✓ Statistical significance
- ✓ Appraisal of techniques and methodologies
- ✓ Clear and technically accurate presentation
- ✓ Rational evidenced based conclusions

Conclusions and Critical Evaluation

It was pleasing that in contrast to last year most candidates were able to use their data collected in section 2 and analysed in section 3 to draw conclusions to their overall research question. There were also some good evaluations where the impact of the reliability of the data collection programme was discussed with specific relation to the accuracy of the results and so the validity of the conclusions drawn. Where a comparative context had been referred to in the purpose section, there was, generally, limited reference made to this in the conclusion. In some cases the key questions/sub-questions that were set at the start were absent in this section.

Yet the best candidates displayed a balanced and concise, well-developed arguments which were fully supported by the drawing together of a selection of relevant evidence.

A useful checklist for students might be to make sure that they self-assess their work using the following list;

- ✓ *Synthesises research findings to produce convincing conclusions which are fully supported*
- ✓ *A balanced appraisal of the reliability of the evidence and the validity of the conclusions*
- ✓ *Accurate and relevant geographical knowledge of*
- ✓ *Location*
- ✓ *Geographical theory*
- ✓ *Comparative context*
- ✓ *Coherent and relevant links between the conclusions and a broader geographical context*

Summary

From the evidence of the 2023 cohort the Principal Moderator would advise centres that the best projects were

On a manageable scale

Utilised an appropriate framework

Choose appropriate methods collecting a range of data

Utilised a valid sampling framework that considered both temporal and spatial sampling

Considered ethical dimensions

Ensured that if group work was used they adapted this to their own investigation

Ensured that there were clear and technically accurate presentation techniques as well as the correct statistical analysis of the data

Synthesised their data

Developed rational evidenced based conclusions

Evaluated how the limitations of their data collection programme influenced the accuracy of their results and so the validity of their conclusions